

Work Order ID 134062

Thursday, June 25, 2015 2:27:05 PM

134062

A&AP

Page 1

Item ID: D3676-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bubble Window, LH
 Start Date: 6/25/2015 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 6/25/2015 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: MLJ Date: JUN 25 2015 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr								
D3676	Rev D								
100	HAND FINISHING THERMOFORMING	0.00							DAS 07 9-89
100									DAS 07 9-89
Thermoform	Memo	0.00							
Thermoforming Machine	Set up Machine as per folio FTA 018 and D3676 program								15/06/30 15/07/14
110	HAND FINISHING THERMOFORMING	0.00							DAS 07 9-89
110									DAS 07 9-89
Thermoform	Memo	0.00							
Thermoforming Machine	Cut Blanks to 38" by 52"								15/06/30 15/07/14

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Item ID: D3676-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Bubble Window, LH

Stop ***NS2***

Start Date: 6/25/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 6/25/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	DAS 07 9-89	DAS 07 9-89
120	THERMOFORMING MACHINE	0.00									
120											
Thermoform	Memo	0.02									
Thermoforming Machine	Thermoform as per Dwg. D3676 and Folio FTA 018										
	Dwg. Rev. <u>D</u>										
	Folio Rev. <u>E</u>										
	1- Visually inspect for proper formation of each part 2- Check depth of bubble										
150	HAND FINISHING THERMOFORMING	0.00									
150											
Thermoform	Memo	0.03									
Thermoforming Machine	1) Trim off excess flange material 2) Buff out any light scratches or blemishes 3) Etch part number and batch number										

PTC →
LAST PAGEDAS
07
9-89

15/07/14

Picklist Print

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Work Order ID: 134062

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Parent Item: D3676-1

D3676-1

Parent Item Name: Bubble Window, LH

Start Date: 6/25/2015

Required Date: 6/25/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev A New Product 01/24/2008 DL Verified:JLM
IPP Rev B Change Mat. to .236" 08/29/2008 DL IPP Rev C
Added D3676-2 12/03/01 DL IPP Rev. D Udate dwg
add 20" dim to apex. 13/012/05

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MACRLICS.236		Purchased	No			110	sf	242.0000	14	25			DAS 07 9-89

MACRLICS 236

Plexiglass G 60" x 96"x .236"

Location

Loc Qty

Loc Code

therm

242

M129447

14

M131524

228

M132743

15/07/28

25 g ft.

DART AEROSPACE LTD		Work Order: 134062
Description:		Part Number: 134062-1
Inspection Dwg: D3676 Rev: D		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST
THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than <u>N/A</u>				
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

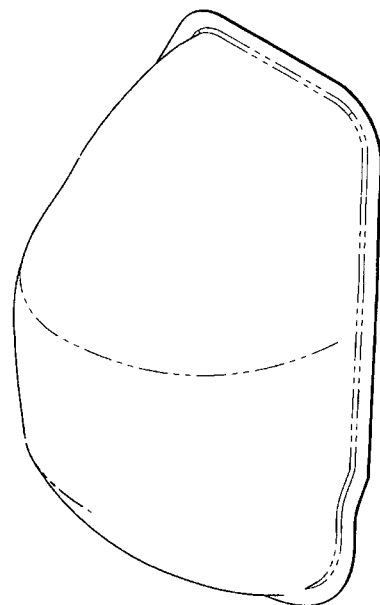
Measured by:	DAS 07 9-89	Date:	15/07/16
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TRIMMING SECTION

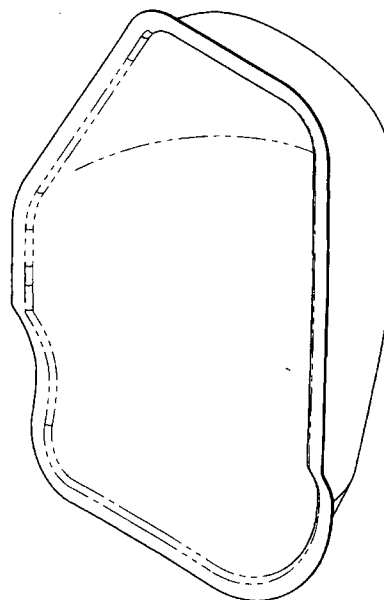
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.090"	MIN	0.124"	✓			
0.070"	MIN	0.118"	✓			
0.050"	MIN	0.055"	✓			
15.5"-17.5"	MIN-MAX	17.0"	✓			
29.1"	±.100	29.2"	✓			
46.0"	±.100	46.1"	✓			
20.0"	MIN	18.0"	✓			

Measured by:	DAS 07 9-89	Date:	15/07/23
Audited by:	DAS 9 15-07-28 9-89	Date:	
Preliminary Approval:		Date:	

Rev	Date	Change	Revised by	Approved
B	10.04.14	Added preliminary approval	KJ	



D3676-1 FULL HEIGHT BUBBLE WINDOW (LH)

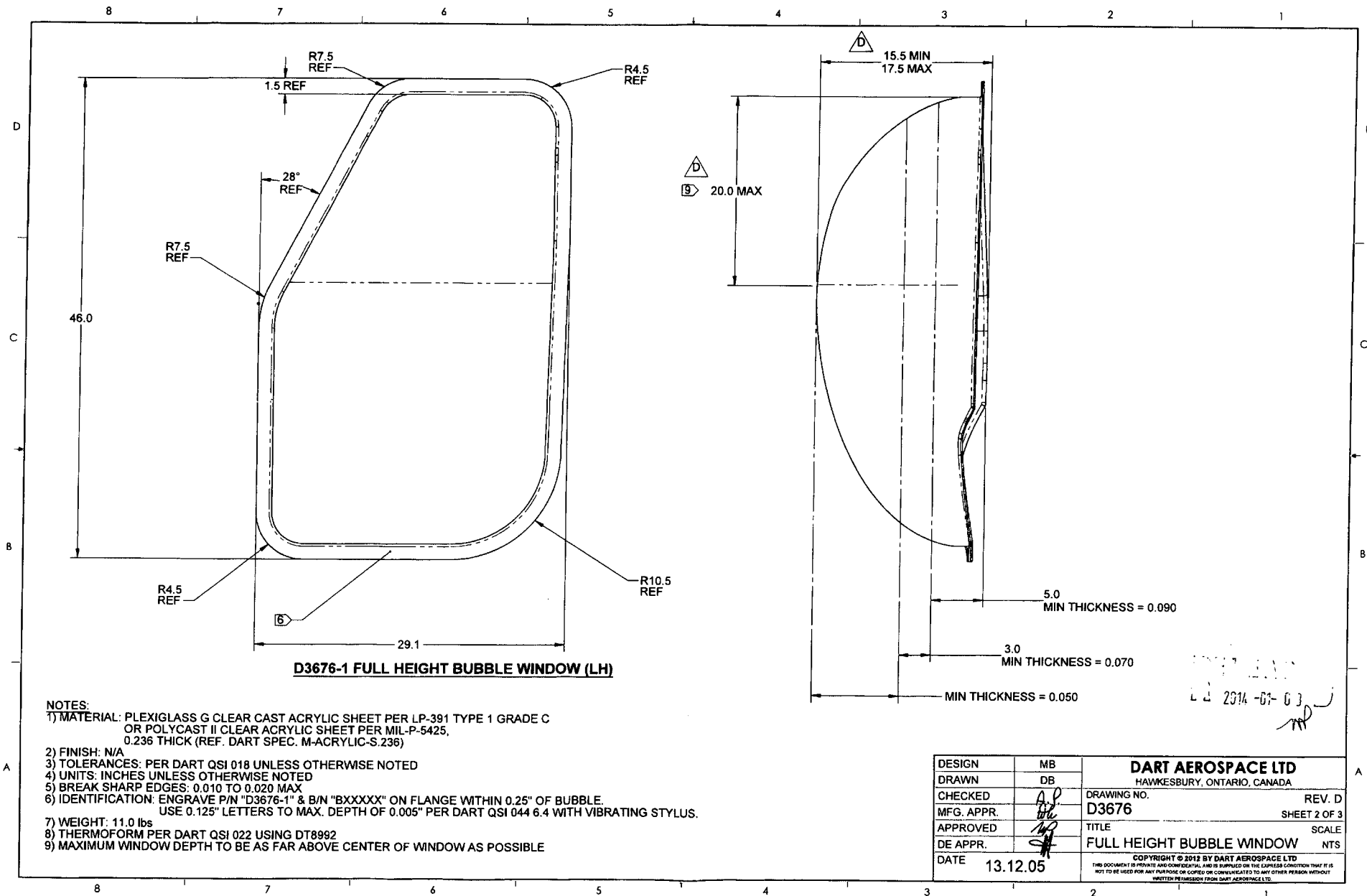


D3676-2 FULL HEIGHT BUBBLE WINDOW (RH)

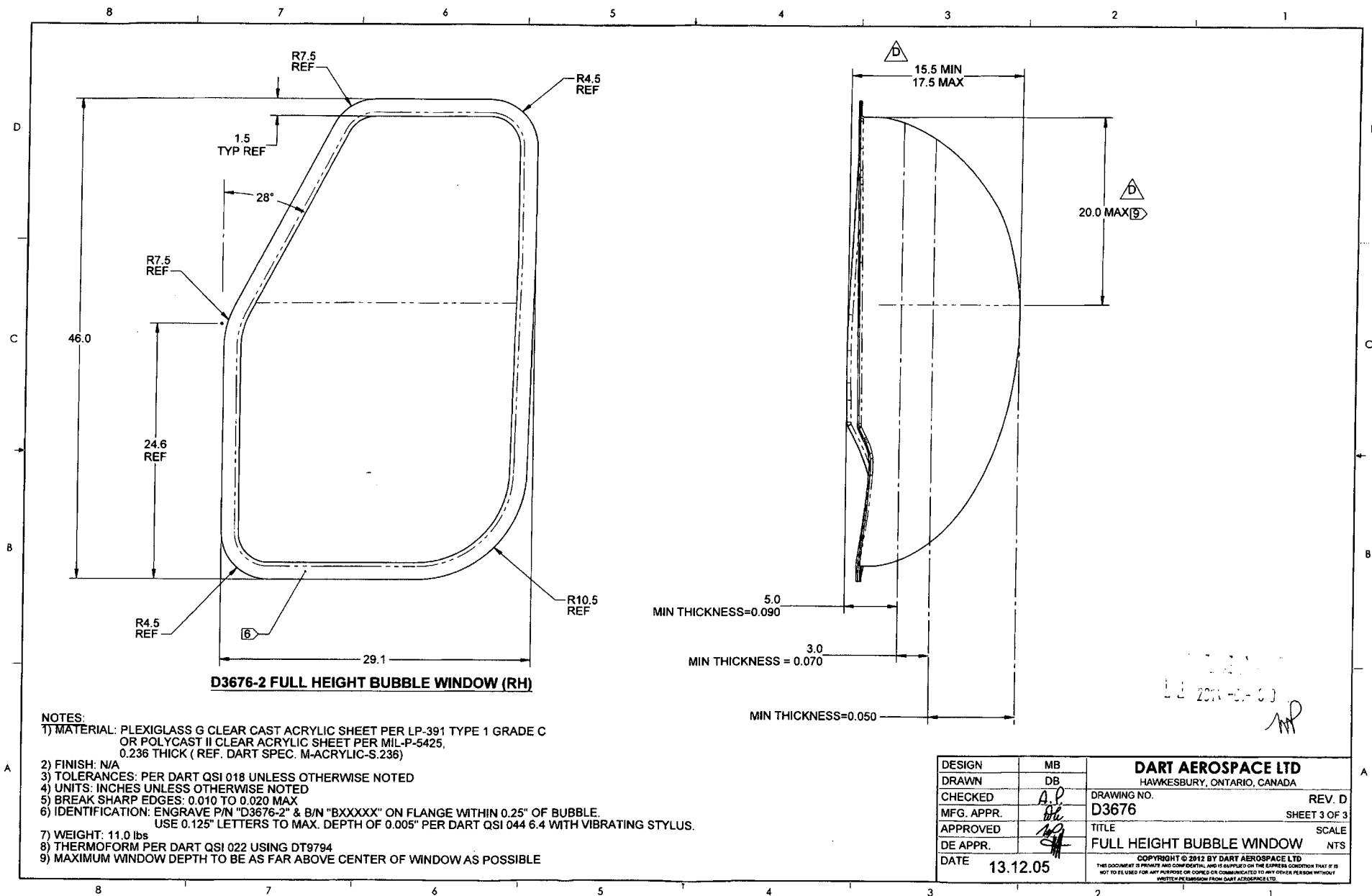
134062.MLS
15-06-25

13.12.05
13-06-03
MB

D	UPDATE TOLERANCE ON DEPTH. ADD 20.0 MAX. VERTICAL DIMENSION (SH 2 & 3). NEW VIEW LAYOUTS ON SH 1 & 2	DB	13.12.05
C	ADDED D3676-2 FULL HEIGHT BUBBLE WINDOW (RH). REMOVED NOTES ON SHEET 1, REFORMAT NOTES 6 & 8 ON SHEET 2. D3676-1 WAS '412 BUBBLE WINDOW' NOW 'FULL HEIGHT BUBBLE WINDOW (LH)'	AP	12.03.01
B	REVISED TOLERANCE ON MINIMUM THICKNESSES (ZN A8/B8-2). REASON: PRODUCTION FACILITY.	MB	08.10.27
A	NEW ISSUE	MB	08.02.29
REV.	DESCRIPTION	BY	DATE
DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	AP	DRAWING NO.	REV. D
MFG. APPR.	MB	D3676	SHEET 1 OF 3
APPROVED	MB	TITLE	SCALE
DE APPR.	MB	FULL HEIGHT BUBBLE WINDOW	NTS
DATE	13.12.05	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



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DRAWN	DB		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. D
MFG. APPR.	<i>[Signature]</i>	D3676	SHEET 2 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	FULL HEIGHT BUBBLE WINDOW	NTS
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NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: *fw*

Date: 16/02/04

QA Closed: *RDH*

Date: 16/02/04

Work Order: <u>134042</u>	DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Work Order Update ☐	AGAINST DEPARTMENT/PROCESS			
Part No. <u>D3676</u>		Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. <u>16-5577</u>		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Thermoforming ☒	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
		Large Fab ☐	Composite ☐	Supplier ☐	

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐	15/06/04	110	1	Part Burned (under development)	DAS 9 9-89 10-01-16	Scrap & Replace. 1 part.	<i>Wh-</i> 15/07/02	DAS 9 16-01-16	DAS 9 16-01-16
Equip/Tooling ☐									
Operator ☒									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General		
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge
☐ Ripples in Bend	☐ Drill Holes	☐ Offset	☐ Pressure/Forced
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration	☒ Temperature/Cure
☐ Turning Sequence	☐ Finish	☐ Out of Sequence	☐ Weld
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions	☐ Wrong Stock Pulled
			☐ Other